DOCUMENT RESUME

ED 414 658 EC 305 825

AUTHOR Algozzine, Bob; Morsink, Catherine V.

TITLE A Study of Instruction in Self-Contained Special Education and Regular Classrooms. Final Report.

INSTITUTION Florida Univ., Gainesville. Dept. of Special Education.
SPONS AGENCY Office of Special Education and Rehabilitative Services (ED), Washington, DC.
PUB DATE 1989-11-00
NOTE 72p.
CONTRACT G008630481; 023TH6004
PUB TYPE Reports - Descriptive (141)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Classroom Environment; Classroom Observation Techniques; Classroom Techniques; Discipline; Elementary School Teachers; Elementary Secondary Education; Emotional Disturbances; Inclusive Schools; Individualized Instruction; Instructional Effectiveness; Learning Disabilities; *Mainstreaming; *Mild Disabilities; Mild Mental Retardation; Questioning Techniques; Regular and Special Education Relationship; Secondary School Teachers; *Special Classes; Special Education; *Special Education Teachers; Teacher Competencies; *Teacher Effectiveness; Teaching Styles

ABSTRACT

This study compared self-contained and regular classrooms for the quantity and quality of instruction provided to students classified as emotionally disturbed, learning disabled, and educable mentally retarded. The study compared 22 effectiveness indicators within 6 modifiable dimensions of instructional variables: (1) questioning style, (2) classroom climate, (3) academic learning style, (4) individualization, (5) teaching style, and (6) classroom management. Observations in 45 special classes were compared with a sample from a database of 1500 observed regular classes using the Classroom Observation Keyed for Effectiveness Research observation system. No differences between regular and special education teachers were found in three indicators: teachers' ability to work with varied groups, to give clear directions, or to use positive reinforcement. Significant differences were found on 19 other effectiveness indicators. Differences favored regular class teachers in three dimensions: questioning style, classroom climate, and academic learning style. Differences favored special education teachers in two measures of individualization. Most teaching style differences favored regular class teachers. For the dimension of classroom management, regular classes showed more evidence of effective management, but special educators assisted students with error correction more. Tables present details of the study's findings. (Contains 41 references.) (Author/DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 414 658

A Study of Instruction in Self-Contained Special Education and Regular Classrooms

Bob Algozzine
University of North Carolina at Charlotte

Catherine V. Morsink
University of Florida

Final Report

United States Department of Education
Office of Special Education and Rehabilitative Services
Special Education Programs Branch

Field-Initiated Research Project #023TH6004
Final Report (Grant # 008630481)

November 1989

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

EC 306825

BEST COPY AVAILABLE

Executive Summary
November 1989

Title: A Study of Instruction in Self-Contained Special Education and Regular Education Classrooms

Name/Contact Person: Bob Algozzine, Ph. D.

Address: Curriculum and Instruction
University of North Carolina at Charlotte
Charlotte, NC 28211

Collaborators: Cathy Morsink
Department of Special Education
University of Florida
Gainesville, FL 32611

Kate Algozzine
English Department
University of North Carolina at Charlotte
Charlotte, NC 28211

Purpose of Research: Self-contained and regular classrooms were observed to compare the quantity and quality of instruction being provided students classified as emotionally disturbed, learning disabled, and educable mentally retarded.

Method: Faculty in the Special Education Department of the University of Florida completed a research effort designed to use existing datafiles to illustrate and compare the classroom instruction received by learning disabled, emotionally handicapped or mentally retarded students participating in special education programs. Classroom instructional ecology was described along several dimensions (e.g., questioning style, classroom climate, student engagement, degree of individualization) and variations in these dimensions were illustrated from a number of perspectives (e.g., categorical placement of students, type of teacher). During the first year of the project, existing data from special education classrooms were analyzed; data obtained during the second year of the project permitted comparisons of regular and special education teachers to be completed. The purpose of the research was to compare the classroom instructional environment of students classified learning disabled, emotionally handicapped, or mentally retarded with that of nonhandicapped students. Specifically, observational data from sixty elementary school classrooms were analyzed.

Results: No differences were indicated in teachers' ability to work with varied groups or the extent to which teachers gave clear directions or used positive reinforcement. Significant differences were indicated on 19 other specific effectiveness indicators. Differences favored regular class teachers in three dimensions of effective instruction. More evidence of effective questioning style was evident in classrooms of regular teachers. For example, they used more convergent/divergent thinking questions and they used questions effectively more than teachers of learning disabled or educable mentally retarded students. The classroom climate in regular rooms was also observed to be better. Regular teachers used varied resources more, provided more group communication, and used more verbal and nonverbal communication. Evidence of effective academic learning style was greater in regular rooms; more evidence of teachers structuring student time, demonstrating listening skills, providing feedback, and maintaining active involvement was observed in regular room than special classes. Differences favoring special classes were evident in two specific areas of individualization. Teachers of emotionally handicapped students modified instruction and used more student self-feedback than other special class teachers or regular class teachers. Regular class teachers accepted varied student viewpoints more than any of the special education teachers. Most teaching style differences favored regular classroom teachers; for example, they used a variety of instructional strategies, provided transfer of training experiences, and developed problem-solving strategies more than special teachers. The extent transition and sequence varied was more similar than different in regular rooms and special classes; however, teachers of emotionally handicapped students did it less than any other teachers. For the dimension of classroom management, there was more evidence of effective management observed in regular rooms but special teachers assisted students with error correction more.

Practical Implications: Students of special education learn the history, definitions, and supposed characteristics of different types of students in spite of limited evidence that this information is useful in planning programs for most exceptional students. Teachers are certified to teach categorically different students in spite of limited evidence that most of the groupings are a source of differential treatment methods. Data from these self-contained special classrooms support the scientific basis for taking the non-categorical side of special education personality more seriously. Observations of teachers in self-contained classrooms containing students classified as learning disabled, emotionally handicapped, or mentally retarded did not support conclusions about differentiated instruction on the basis of category. And, while this does not mean that categorical instruction is better or worse than non-categorical instruction or that special education is better or worse than regular education for these students, it does seem a reasonable beginning for continued research to determine the appropriateness of placing and teaching students in disability groups.

BEST COPY AVAILABLE

ABSTRACT

Teaching is systematic presentation of content assumed necessary for successful progress in school. Each year, large numbers of students fail to profit from the educational menu taught in America's schools. Many of these failing students are classified as handicapped and receive special education designed to compensate for or correct the problems believed to be the source of their failure. While very many students receive special education, the effectiveness of this alternative educational system remains an issue largely because so little is known about what special and regular teachers do differently in their classrooms. The purpose of this research was to describe classroom instructional ecology along multiple dimensions (e.g., effective teaching domains) and to describe variations in these dimensions from a number of perspectives (e.g., categorical placement of students, type of teacher). Data from 60 regular and self-contained special education classrooms were analyzed. Comparisons of six modifiable dimensions of instructional variables (i.e., questioning style, classroom climate, academic learning style, individualization, teaching style, classroom management) in classes serving nonhandicapped students or students classified as emotionally handicapped, learning disabled, or mentally retarded were completed. Twenty-two analyses of variance within these data provide a basis for describing the teaching practices and instruction in self-contained special education classrooms. The goal was to illustrate and compare the nature of special education classroom instruction within various types of special classrooms and between regular and special education settings. It is believed that this work provides a strong foundation for addressing the question at the base of the search for effectiveness of special education programs (i.e., What is special about special education?).

PURPOSE

The Special Education Department of the University of Florida completed a research effort designed to use existing datafiles to illustrate and compare the classroom instruction received by learning disabled, emotionally handicapped or mentally retarded students participating in special education programs. The classroom instructional ecology along dimensions that are modifiable (e.g., questioning style, classroom climate, classroom management style, academic learning style) was described and variations in these dimensions were illustrated from a number of perspectives (e.g., categorical placement of students, type of teacher). In keeping with the purpose of the Extant Data Base Projects (RFP #84.023T), the research focused on the issue of special education effectiveness and provided information for use in teacher-training, research, and service activities related to improving classroom instruction for handicapped students.

Rationale for the Project

Public school administrators are increasingly being asked by federal and state legislators, parents, advocacy groups, and policy makers to provide data on the effectiveness of classroom instruction. These requests for data demonstrating that schooling works have recently culminated in a "search for excellence" that has turned American education into an arena of renewed interest among researchers and practitioners alike. Popular as well as professional organs have presented a variety of perspectives on the effectiveness issues. Central to special education once again is the concern for whether pull-out programs are effective in improving student academic and social performance and in reducing societal burdens by educating handicapped youngsters in alternative environments.

When one looks at previous attempts to study special education effectiveness, one is struck by the apparent

completeness with which the topic has been addressed. There are efficacy studies (e.g., Blatt, 1958; Budoff & Gottlieb, 1976; Myers, 1976; Sabatino, 1971; Trimble, 1970; Vacc, 1972), studies of efficacy studies (e.g., Bruininks & Rynders, 1971; Carlberg & Kavale, 1980; Cegelka & Tyler, 1970; Glass, 1983; Goldstein, 1964; Guskin & Spicker, 1968; Kirk, 1964; MacMillan, 1971; Semmel, Gottlieb & Robinson, 1979) and studies of efficacy study studies (e.g., Kavale & Glass, 1982; Tindal, 1985). Despite all the study, the general conclusion from most of the effort tends to be similar to that of Tindal (1985): "The only conclusion that can be made at this time is that no conclusion is yet available about special education efficacy" (p. 109). The point of view at the base of this research was that questions of effectiveness should not be addressed before a clear picture of what constitutes a "special education" has been developed. As Goldstein, Moss and Jordan (1965) indicated:

> Placing an educable mentally retarded child in a special class is an administrative procedure only...with neither program nor teacher described, there remains the possibility that the program and the teacher's attributes differed little from what is found in the regular class (pp. 13-14).

Efforts to document that special education is effective are influenced by a complex set of interrelated concerns. The lack of clarity and consensus on the goals of special education, the absence of acceptable measures of performance and improvement related to special education, the absence of models for demonstrating the efficacy of special education programs, and the lack of illustrative data indicating how regular and special education classroom instruction differs all serve to frustrate those who study effectiveness from a scientific basis.

The process is further complicated by the types of questions that effectiveness researchers typically ask: Do those who receive special education pay back society at a rate considered justifiable? Do they become better citizens, with better jobs? Do special education students stay out of institutions, jails or welfare programs? To what extent is the handicapped individual, and society as a whole, better off as a result of special education? And, while these are critically important questions to address when studying effectiveness, they may be "putting the cart before the horse" in the research paradigm.

Questioning outcomes is based on an assumption that there is something going on in special education that will produce expected, desired effects, yet little is known about what effective special education teachers do. In fact, most of what is known about what goes on in classrooms of effective teachers comes from a line of research conducted in regular classrooms (Bemis & Luft, 1970; Brophy & Evertson, 1974; Coker, Lorentz & Coker, 1976; Good & Grouws, 1977; Harris, Morrison, Serwer & Gold, 1968; Harris & Serwer, 1966; McDonald & Elias, 1976; Perham, 1973; Soar, 1966, 1973; Soar & Soar, 1972; Solomon & Kendall, 1976; Spaulding, 1965; Stallings & Kaskowitz, 1974). It has consistently been found in this "process/product" research that specific teacher variables correlate positively with desired student outcomes and that predictive profiles of effective teachers emerge (cf. Brophy, 1979; Gage, 1978; Medley, 1977; Rosenshine, 1979). Consider the following:

> The comprehensive reviews provided by Medley and others suggest a tentative picture of the teacher who is effective in elementary classrooms composed primarily of low-achieving students. Given modest losses of precision, a narrative portrayal of such a teacher will be attempted. The teacher especially effective in this type of setting

BEST COPY AVAILABLE

> engages students in more lesson-related activities that the less effective teacher does. That is, more class time is devoted to task-related or academic activities, more structure is provided, more of the teacher's interactions are related to lesson content, and there is less time in which students are unoccupied....
>
> In terms of questioning strategies, the effective teacher in low-ability classes is most likely to ask a question and then choose a respondent who probably has not indicated a desire to answer. The questions asked are "lower order" and elicit responses that are usually correct, seldom meriting further discussion. This teacher is likely to raise a question first and then indicate who is to answer it, possibly as a way of holding students' attention. The student chosen to respond is likely to get the right answer, because these teachers ask more appropriate questions and have a better sense of the difficulty level their students can handle....
>
> In the area of environmental maintenance, there is less deviant or disruptive student behavior in classes taught by the effective teacher. Teacher rebukes are less frequent, and less time is devoted to managing the classroom. The successful teacher controls the class with less criticism and uses a more varied repertory of techniques in doing so. This teacher also uses more praise or positive motivation.... (Larrivee, 1985, pp. 5-6).

And, after comprehensive study of successful mainstreaming instructional practices, Larrivee concluded that "[t]he profile that emerges for teachers effective with mainstreamed

students is notably similar to that of the overall effective teacher based on numerous process/product research findings" (p. 107).

Statement of the Problem

Little is known about the characteristics of instruction provided in self-contained classrooms for students classified as learning disabled, emotionally handicapped, or mentally retarded. For the most part, studies of effectiveness of these programs have been more concerned with the integrity of research designs and dependent variables than with documenting instructional differences within the settings being evaluated (cf. Glass, 1983; Tindal, 1985); or, as Larrivee (1985) puts it, "... efficacy studies have failed to examine specific teaching behaviors characteristic of the settings being compared" (p. 3). The focus of this research project was the analysis of observational data gathered in self-contained special education classrooms serving students classified as learning disabled, emotionally handicapped, or mentally retarded. It is believed that this work will provide a strong foundation for addressing the problem at the base of the search for effectiveness of special education programs (i.e., What is special about special education?).

Project Objectives

The purpose of this project was to illustrate and compare the classroom instruction for students classified learning disabled, emotionally handicapped, or mentally retarded. Accomplishment of the following general objectives served to organize the effort:

BEST COPY AVAILABLE

1. To analyze existing observational data to illustrate the form and content of classroom instruction provided by teachers of students classified learning disabled, emotionally handicapped, or mentally retarded.
2. To analyze existing observational data to compare the form and content of classroom instruction provided by teachers of students classified learning disabled, emotionally handicapped, or mentally retarded.
3. To analyze existing observational data to illustrate the form and content of classroom instruction provided by teachers of nonhandicapped students in regular education programs.
4. To analyze existing observational data to compare the form and content of classroom instruction provided by teachers of nonhandicapped students and students in special programs.
5. To evaluate the extent to which characteristics of effective instruction are evident in classrooms serving students classified as learning disabled, emotionally handicapped, and mentally retarded.

METHOD

Faculty in the Special Education Department of the University of Florida completed a research effort designed to use existing datafiles to illustrate and compare the classroom instruction received by learning disabled, emotionally handicapped or mentally retarded students participating in special education programs. Classroom instructional ecology was described along several dimensions (e.g., questioning style, classroom climate, student engagement, degree of individualization) and variations in these dimensions were illustrated from a number of perspectives (e.g., categorical placement of students, type of teacher). During the first year of the project, existing data from special education classrooms were analyzed; data obtained during the second year of the project permitted comparisons of regular and special education teachers to be completed. The purpose of the research was to compare the classroom instructional environment of students classified learning disabled, emotionally handicapped, or mentally retarded with that of nonhandicapped students. Specifically, observational data from sixty elementary school classrooms were analyzed.

Background

The State of Florida has a history of concern for quality education. Minimum competency testing standards and grade-to-grade promotion criteria have been a part of state rules and regulations for some time. Educators and State Department personnel have attempted to improve teacher quality at the preservice level by requiring higher entrance test scores in colleges of education, by establishing a Teacher Certification Examination program, and by monitoring teacher preparation programs within the State University System.

BEST COPY AVAILABLE

As part of a continuing "search for excellence" in education, the Florida Council on Teacher Education has identified 23 generic competencies which have been adopted in the Rules of the State Board of Education. The Florida Coalition, consisting of experts in the field of teacher evaluation, merged 20 years of research on teacher effectiveness with the already existing generic competencies and developed the Florida Performance Measurement System (FPMS) for use in evaluation of beginning and experienced teachers within the state's plan for educational accountability. Although the FPMS is based on teacher effectiveness research in regular classroom settings, it is used to evaluate the performance of all teachers. For this reason, state department personnel in the area of Exceptional Student Education requested study of the FPMS in special education classrooms.

For several years, faculty in the Department of Special Education at the University of Florida conducted observations in special education classrooms. The goal of that work was to provide comparative data for use in analyzing the value of the Florida Performance Measurement System with special education teachers. These observational data represent the extant data base for the first year effort; data from regular classrooms were compiled as part of a large-scale teacher evaluation study.

Subjects

Teachers of students classified as emotionally handicapped, learning disabled or mentally retarded were observed during various types of classroom instruction. Conceptual definitions for these categories of students are typical of those used elsewhere to differentiate diagnostic classifications of high incidence handicaps. The definitions follow:

1. An educable mentally retarded student is one who is impaired in intellectual and adaptive behaviors and whose development reflects his reduced rate of learning.
2. The emotionally handicapped student is one who exhibits persistent and consistent severe behavioral disabilities which consequently disrupt his own or others learning processes. For the emotionally handicapped child the inability of achieve academic progress or satisfactory interpersonal relationships can not be attributed to physical, sensory, or intellectual deficits.
3. Learning disabled students exhibit disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. They do not include learning problems which are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional handicaps, or environmental disadvantage.

It was assumed that classification practices based on these definitions and related operational criteria that exist in rules and regulations governing the development of special education programs in Florida were the basis for decisions to place students in the self-contained special education classrooms that were observed. Generalizations to special classes containing similar students are warranted.

Classroom observations in approximately 45 special education classrooms were completed. Similar data from more

than 1500 regular classrooms were collected and an appropriate sample was available for use in this project.

Observation System

All observational data were collected by trained observers using the Classroom Observation Keyed for Effectiveness Research (COKER) observation system. The COKER is a "low inference, direct observation instrument used to record the behaviors of pupils and their teachers in actual classrooms" (Coker & Coker, 1982b, p. 1); it is a comprehensive system for recording student and teacher behavior as it takes place in the classroom. This observation system is based on the assumption that what teachers do in classrooms effects student progress in those rooms; those teaching behaviors are believed to be observable and provide the basis for comparisons of teacher performances (Coker & Coker, 1982b). The COKER is the result of an extensive developmental process and is a composite instrument derived from five objective, systematic, direct observation instruments[1] used in numerous process/product studies of teacher effectiveness. The items on the COKER have been generated and adapted from more than 1300 category, sign items found to be highly influential in previous process/product research. The intent of synthesizing these items was to capture, to the maximum extent possible, the breadth of content evident in the five observation instruments used in the development of the COKER. The basis for selection of these items was correlations between scores on individual items and pupil gain reported in process/product research studies (cf. Coker & Coker, 1982b).

[1]These instruments were the Observation Schedule and Record, Form 5 Verbal (OSCAR), Spaulding Teacher Activity Rating Schedule (STARS), Florida Climate and Control System (FLACCS), Teacher Practices Observation Record (TPOR), and Coping Analysis Schedule for Educational Settings (CASES).

Based on its development and subsequent use, "the COKER is likely the most comprehensive and useful instrument available for low-inference observations of teacher behavior" (Dickson & Wiersma, 1984, p. 28).

Validity, reliability, and norming information presented in the COKER manual indicate that the system has adequate technical characteristics for use in this type of research. Additionally, relative to the critical factor of observer agreement, the system is considered very adequate. Coker and Coker (1982b) put it this way:

> Observer agreement is not a measure of instrument reliabilities. However, with any observation system it is important that the results are independent of the specific individual who is doing the observing. The COKER observation procedure is highly objective. It has been shown that, with proper training, results are highly consistent across observers. In studies of observer agreement, in which the results from pairs of observers are compared, the extent of agreement tends to be in the .80's with occasional agreement approaching .90. (p.31)

Observer Training

All observations were completed by university faculty members or graduate students trained in the use of the COKER observation system by its developers or staff trained by them. The training sessions were structured to provide practice using the observation forms with videotaped presentations of classroom interactions. All observers completed a minimum of six training observations of at least an hour in length and were considered proficient in the use of the COKER when inter-observer agreements between themselves and trained observers reached 90%.

Observation Procedures

Each observer conducted a minimum of nine 5-minute observations in each classroom over a two-day period of time. Special teachers were informed that the observations were for purposes of evaluating the Florida Performance Measurement System and that they were not being evaluated. Observers also explained that the research was intended to help state department personnel develop FPMS competencies for use in exceptional student education. Observers were instructed to abstain from involvement in any classroom activities, to meet the teacher early, to determine the classroom setting, activities and other demographic information before entering the room and to keep a "low profile" during the observations.

Three broad areas of teacher activities (i.e., presenting, questioning, responding) were observed using 27 specific behavior indicators; ten student activities were also coded during observation periods (see Figure 1, Section A). Subsequent to the active observation phase, the general "classroom climate" was recorded by selecting appropriate terms from among approximately 100 indicators (see Figure 1, Section B).

Insert Figure 1 About Here

Large amounts of teacher-pupil interaction data are recorded using the COKER. For example, approximately 600 5-minute "snapshots" of what was going on in special education classrooms were obtained when 44 teachers participated in the first year of the initial research project conducted for the State Department of Education. A computer program was developed by faculty at the University of Florida for use in evaluating these data using keys designed for comparing various types of teachers. More than

Figure 1

Example of COKER Record Sheet

Section A

	SECTION A — STUDENT	1. Passive compliance	2. Active compliance	3. Answers quest. directed to him	4. Answers quest. voluntarily	5. Substantive question	6. Procedural question	7. Volunteers comment	8. Off-Task Questions or comments	9. Individual Off-Task (V or Non V)	10. Disruptive Off-Task (V or Non V)
PRESENTING	11. Orienting										
	12. Motivates/Prob. struct, (set induction)										
	13. Directs – learning related										
	14. Directs – non learning related										
	15. Explains, discusses, tells										
	16. Digresses										
	17. Praises										
QUESTIONING	18. Open-ended/No wrong answer										
	19. Recall/rote/information										
	20. Use or Application										
	21. Ampli/Eval/Elaborate – Students' own idea										
	22. Ampli/Eval/Elaborate – Other Students' idea										
	23. Status										
RESPONDING	24. Praises with explanation										
	25. Praises without explanation										
	26. Tells, gives info.										
	27. Wrong answer/No answer/Gives info.										
	28. Accepts – neutral/checks own perception										
	29. Uses, extends										
	30. Waits (cog)										
	31. Focusing/Cueing										
	32. Asks another student										
	33. Repeats after feedback										
	34. Listens/Observes/Pays attention										
	35. Suggests/Questions/Directs/Ignores										
	36. Interrupts/Rejects										
	37. Criticizes/Commands										
	38/39 Code Involvement										

BEST COPY AVAILABLE

Figure 1

Example of COKER Record Sheet

Section B

SECTION B

STUDENT

○	40. Enthusiastic	
○	41. Praises another	
○	42. Pats, hugs/Pos. horseplay	
○	43. Laughs, smiles	
○	44. Shows pride	
○	45. Agrees, V or NV	
○	46. Friendly, V or NV	
○	47. Helps/Shares/Consider V or NV	
① ② ③ ④ ⑤	less ¼ of class ¼ of class ½ of class ¾ of class all of class	48. Code Involvement (40-47)
○	49. Intense Involvement	
○	50. Leadership	
○	51. Follows Routine WO Rem.	
○	52. S. answers another S.	
○	53. Works w/social	
○	54. Collab. work/play	
○	55. Compet. – work/play	
○	56. Confused	
○	57. Self-directed; Inappro.	
○	58. Wanders about	
○	59. Pouts, withdraws	
○	60. Shows fear, shame	
○	61. Makes face, frowns	
○	62. Tattles	
○	63. Teases	
○	64. Resists	
○	65. Picks at another/Neg. horseplay	
○	66. Dem/Com/Boss/Con	
○	67. Disr/Annoy/Interferes	
○	68. Takes/Damage/Stamp/Throws	
○	69. Crit/Disparages	
○	70. Att/Hit/Hurt/ – agg	
① ② ③ ④ ⑤	less ¼ of class ¼ of class ½ of class ¾ of class all of class	71. Code Involvement (61-70)
① ② ③ ④ ⑤	less ¼ of class ¼ of class ½ of class ¾ of class all of class	72. Code Interest/ Attention

TEACHER

METHODOLOGY

Motivation	○	73. Intrinsic Immed
	○	74. Intrinsic Future
	○	75. Extrinsic
Student Choice	○	76. S no choice
	○	77. S lim choice
	○	78. S free choice
Super-vision	○	79. Aloof, detached
	○	80. Observes, Monitors
	○	81. Joins, partic.
	○	82. Manages simul. Act
	○	83. Close superv.
Focus	○	84. T. Q. Prob.
	○	85. S. Q. Prob.
Source	○	86. Text, pkg. res.
	○	87. Multiple res.
Differ/ Evaluation	○	88. Same mat/eval.
	○	89. Indiv. mat/eval.
	○	90. S. partic./eval.
Student Expres.	○	91. Discourages
	○	92. Encourages
Student Perpl.	○	93. Prevents
	○	94. Fosters
Mis-inform	○	95. Accepts
	○	96. Corrects
Strategy	○	97. Inductive
	○	98. Deductive
	○	99. Transductive
	○	100. Expository
Cogn. Level	○	101. Simple
	○	102. Complex
Use of Student time	○	103. T. assigns SA
	○	104. Indep. work

AFFECT NON-VERBAL

○	105. Warm, cong.		
○	107. Nod, smiles	○	108
○	109. Tou/Pat/Hug	○	110
○	111. Pause	○	112
○	113. Eye contact	○	114
○	115. Ignore	○	116
○	117. Gestures/Sig'l/Raps	○	118
○	119. Shakes head/shh	○	120
○	121. Takes something	○	122
○	123. Glares, Frowns	○	124
○	125. Holds, Pushes	○	126

CONTROL

VERBAL

○	127. Praise, non-sub	○	128
○	129. Agrees, Supports	○	130
○	131. Pos. Indiv. Attn.	○	132
○	133. Reminds	○	134
○	135. Says stop	○	136
○	137. Firm/Sharp	○	138
○	139. Sco/Warns/Pun	○	140

GROUPING (Blacken Ⓓ for dominant mode)

	Non-pres WT.		Non-pres WOT	No. of Stu.	Prescribed WT.		Prescribed WOT	
141	○ Ⓓ	146	○ Ⓓ	1	○ Ⓓ	150	○ Ⓓ	155
142	○ Ⓓ	147	○ Ⓓ	2-3	○ Ⓓ	151	○ Ⓓ	156
143	○ Ⓓ	148	○ Ⓓ	4-½	○ Ⓓ	152	○ Ⓓ	157
144	○ Ⓓ	149	○ Ⓓ	½ +	○ Ⓓ	153	○ Ⓓ	158
145	○ Ⓓ			ALL	○ Ⓓ	154	○ Ⓓ	159

COMMENTS:

BEST COPY AVAILABLE

50 scoring keys have been developed (Coker and Coker, 1982b); each contains a series of teaching dimensions compiled by aggregating individual items from the observation system. Since many keys are inappropriate for analyzing special education teaching behaviors (e.g., those developed for music teachers or high school geometry teachers), the Toledo Competency keys (developed for use with special education teachers) were used in this research. The procedure for the development of these keys is described in detail in the observation system user's manual (cf. Coker & Coker, 1982b). This set of keys was field-tested and made operational using the computer program supplied by the COKER observation system developers and implemented at the University of Florida.

The Toledo Competency keys address the following teacher activities:

1. Uses a variety of instructional strategies. (VI)
2. Uses convergent and divergent inquiry strategies. (IS)
3. Develops and demonstrates problem-solving skills. (PS)
4. Establishes transitions and sequences in instruction which are varied, logical and appropriate. (TS)
5. Modifies instructional activities to accommodate identified needs. (MI)
6. Demonstrates ability to work with individuals, small groups, and large groups. (AW)
7. Structures the use of time to facilitate student learning. (ST)
8. Uses a variety of resources and materials. (VR)
9. Provides learning experiences which enable students to transfer principles and generalizations to situations outside school. (TP)
10. Provides group communication experiences. (GC)
11. Uses a variety of functional verbal and non-verbal communication skills with students. (VC)

BEST COPY AVAILABLE

12. Gives clear directions and explanations. (CD)
13. Motivates students to ask questions. (AQ)
14. Uses questions that lead students to analyze, synthesize and think critically. (UQ)
15. Accepts varied student viewpoints and/or asks students to extend or elaborate answers or ideas. (VV)
16. Demonstrates proper listening skills. (LS)
17. Provides feedback to learners on their cognitive performance. (PF)
18. Maintains environment in which students are actively involved. (AI)
19. Implements an effective classroom management system for positive student behavior (discipline). (EM)
20. Uses positive reinforcement patterns with students. (PR)
21. Assists students in discovering and correcting errors and inaccuracies. (CE)
22. Develops student feedback/evaluation skills and self-evaluation. (SF)

The procedure for the development of these keys is described in detail in a monograph prepared at the Center for Educational Research and Services in Toledo, Ohio (cf. Dickson & Wiersma, 1984).

Organization of Data

Each observation form obtained from a participating teacher's classroom was been to a sequential direct access data set on the University of Florida Northeast Regional Data Center computer using available equipment (NCS Scanner #7018) and a scoring program developed specifically for the COKER system. This data set consisted of one record for each observation that was completed; each record contained the following information:

1. Teacher identifying number
2. School identifying number

3. District identifying number
4. Grade code
5. Categorical placement code
6. Class size during observation
7. Date of observation
8. Observer code
9. Content of instruction during observation
10. Visitation code
11. Observation code (1 or 0 for each of 392 COKER items).

Using computer programs that were already developed, it was possible to select all or any part of these data (e.g., all teachers of learning disabled students, all teachers of learning disabled students with at least 10 students in class, all teachers of learning disabled or emotionally disturbed students during reading instruction) for submission to the key scoring program.

To facilitate subsequent analysis of these data, classroom interaction variables from the Toledo Competency keys were grouped to encompass the following six domains identified by Larrivee (1985) as central to teacher effectiveness studies:

1. Questioning style
    a. Uses convergent and divergent inquiry strategies. (IS)
    b. Motivates students to ask questions. (AQ)
    c. Uses questions that lead students to analyze, synthesize and think critically. (UQ)
2. Classroom climate
    a. Demonstrates ability to work with individuals, small groups, and large groups. (AW)
    b. Uses a variety of resources and materials. (VR)
    c. Provides group communication experiences. (GC)
    d. Uses a variety of functional verbal and non-verbal communication skills with students. (VC)

3. Academic learning style
    a. Structures the use of time to facilitate student learning. (ST)
    b. Demonstrates proper listening skills. (LS)
    c. Provides feedback to learners on their cognitive performance. (PF)
    d. Maintains environment in which students are actively involved. (AI)
4. Individualization
    a. Modifies instructional activities to accommodate identified needs. (MI)
    b. Accepts varied student viewpoints and/or asks students to extend or elaborate answers or ideas. (VV)
    c. Develops student feedback/evaluation skills and self-evaluation. (SF)
5. Teaching style
    a. Uses a variety of instructional strategies. (VI)
    b. Develops and demonstrates problem-solving skills. (PS)
    c. Establishes transitions and sequences in instruction which are varied, logical and appropriate. (TS)
    d. Provides learning experiences which enable students to transfer principles and generalizations to situations outside school. (TP)
    e. Gives clear directions and explanations. (CD)
6. Classroom management
    a. Implements an effective classroom management system for positive student behavior (discipline). (EM)
    b. Uses positive reinforcement patterns with students. (PR)
    c. Assists students in discovering and correcting errors and inaccuracies. (CE)

The task of placing "keys" (e.g., Toledo Competency #1; Motivates students to ask questions, Toledo Competency #14;

BEST COPY AVAILABLE

Uses questions that lead students to analyze, synthesize and think critically) within appropriate domains (e.g., Questioning style) was completed by having project staff independently sort the keys into domains. Any variance from unanimity was arbitrated until all keys were sorted and the structure of each domain was established.

Research Questions

The following general research questions were used to guide analyses of the observational data available from teachers in elementary regular and special classrooms:

1. What questioning style characterizes teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?
2. What classroom climate is provided by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?
3. What academic learning style characterizes special classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?
4. What degree of individualization is evident in classrooms directed by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?
5. What teaching style is evident in self-contained classrooms for students classified as learning disabled, emotionally handicapped, or mentally retarded?
6. What type of classroom management characterizes teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?
7. To what extent is questioning style of teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded and teachers of regular education students similar?

BEST COPY AVAILABLE

8. To what extent is classroom climate provided by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded and teachers of regular education students similar?

9. To what extent is the academic learning style evident in special classrooms similar to that in regular classrooms?

10. To what extent is individualization provided by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded and teachers of regular education students similar?

11. To what extent is the teaching style evident in special classrooms similar to that in regular classrooms?

12. To what extent is type of classroom management used by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded similar to that used by teachers of regular education students?

13. To what extent is the questioning style of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

14. To what extent is the classroom climate provided by effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

15. To what extent is the academic learning style evident in classrooms of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

16. To what extent is the degree of individualization evident in classrooms of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

17. To what extent is the teaching style of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

18. To what extent is the type of classroom management used by effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Data Analysis

Classroom observational data from 60 elementary-level regular and self-contained special classes were available for analysis. Tabular presentations were used to illustrate the classroom ecology of these rooms. Specific activities (e.g., praises, waits, asks another student) as well as general teacher activities (e.g., questioning style, type of classroom management) were compiled, analyzed, and reported. Similarities and differences between groups of teachers and among types of classrooms were analyzed through a series of one-factor analyses of variance; a statistical level of 0.05 was used in evaluating main effects in these analyses.

Summary

The instructional ecology (e.g., general and specific teaching activities, classroom climate) in special classes containing students classified as learning disabled, emotionally handicapped, or mentally retarded was evaluated in this research. Comparisons with instruction provided nonhandicapped students were completed. Data from 60 classrooms were analyzed in the research. Domains of effective teaching developed from research with regular and mainstreaming teachers were represented in the aggregated data sets that were evaluated. It is believed that this work provides a strong foundation for addressing the problem at the base of the search for effectiveness of special education

programs (i.e., What is special about special education?).

Results

The purpose of this project was to illustrate and compare the classroom instruction for students classified learning disabled, emotionally handicapped, or mentally retarded. Data from these classrooms were compared to those gathered in regular classes.

Participating Subjects

Classroom observations were completed in 27 elementary-level self-contained special education rooms. Students in eleven (41%) classrooms were classified as learning disabled, students in ten (37%) classrooms were classified as mentally retarded and students in six (22%) of the rooms were classified as emotionally handicapped. This distribution roughly approximates the overall demography for students with high incidence handicaps in the state in which the data were collected.

Teachers in nine school districts participated; thirty-seven percent of the observations were completed in two large school systems, twenty-six percent of the observations were obtained in three medium-size districts, and the remaining observations were obtained from classes in four small districts. The relative number of each size site was determined on the basis of the statewide distribution of small, medium, and large county school systems. A total of twenty-four schools was sampled; seven were in large districts, seven in medium-size and ten in small school systems.

Most of the observations took place during language arts, reading, or math instruction (29%, 30%,12% respectively). The average number of students in the room during the observation was nine; over two-thirds of the data were collected in classes containing from 4 to fourteen students

BEST COPY AVAILABLE

and about 15% were collected in rooms containing less than 4 or more than 14 students.

Classroom observations were completed in 33 regular elementary education classrooms. None of the students in any of the rooms were classified as learning disabled, mentally retarded, or emotionally handicapped. The regular class teachers were randomly selected from several school in a large metropolitan school district.

Most of the observations took place during language arts, reading, or math instruction (7%, 27%,13% respectively). The average number of students in the room during the observation was fifteen; over two-thirds of the data were collected in classes containing from 5 to 25 students and about 15% were collected in rooms containing less than 5 or more than 25 students.

Technical Characteristics of Observations

Different numbers of items were included in the scoring keys used in this research. Generally, the reliability of a scoring key is related to the number of items included in it. Internal consistency estimates for the six dimensions of keys used in this research are presented in Table 1; numbers of items in each key are also indicated. High reliabilities (i.e., .60 or greater) were obtained for the verbal and nonverbal communication skills, convergent and divergent inquiry strategies, group communication experiences, maintains active involvement, accepts varied viewpoints, implements effective management and uses positive reinforcement keys. Low reliabilities (below .25) were evident for only four keys: Uses questions that lead students to analyze, synthesize, and think critically, establishes transitions that are varied, develops student feedback and self-evaluation, and uses a variety of resources. In general, these values were acceptable for this research.

Insert Table 1 About Here

Observation Outcomes

Means, standard deviations, and analysis of variance summary statistics for the six general dimensions and 22 specific effectiveness indicators are presented in Tables 2-29.

No differences were indicated in teachers' ability to work with varied groups or the extent to which teachers gave clear directions or used positive reinforcement. Significant differences were indicated on 19 other specific effectiveness indicators.

Differences favored regular class teachers in three dimensions of effective instruction. More evidence of effective questioning style was evident in classrooms of regular teachers. For example, they used more convergent/divergent thinking questions and they used questions effectively more than teachers of learning disabled or educable mentally retarded students. The classroom climate in regular rooms was also observed to be better. Regular teachers used varied resources more, provided more group communication, and used more verbal and nonverbal communication. Evidence of effective academic learning style was greater in regular rooms; more evidence of teachers structuring student time, demonstrating listening skills, providing feedback, and maintaining active involvement was observed in regular room than special classes.

Differences favoring special classes were evident in two specific areas of individualization. Teachers of emotionally handicapped students modified instruction and used more student self-feedback than other special class teachers or regular class teachers. Regular class teachers accepted

varied student viewpoints more than any of the special education teachers.

Most teaching style differences favored regular classroom teachers; for example, they used a variety of instructional strategies, provided transfer of training experiences, and developed problem-solving strategies more than special teachers. The extent transition and sequence varied was more similar than different in regular rooms and special classes; however, teachers of emotionally handicapped students did it less than any other teachers. For the dimension of classroom management, there was more evidence of effective management observed in regular rooms but special teachers assisted students with error correction more.

Discussion

This research was different from previous studies of teacher effectiveness in special education. The focus of the work was observable behaviors within the context of classroom instruction; that is, data from a global observational system were available to illustrate and compare the instructional ecology in special and regular education classrooms. The effort concentrated on defining differences among categorical placements and between them and regular education classes rather than on determining the extent to which undefined "special programs" are effective. It was anticipated that the project would result in the following benefits and outcomes:

1. The extent to which different types of teachers (e.g., regular and special) demonstrate behaviors believed to be effective was illustrated.
2. The extent to which special education and regular education teachers perform differently in the classroom was compared.
3. A set of useful parameters indicative of what several types of special education teachers do was identified.
4. Profiles of teacher performance in classrooms for different types of students were compiled and compared to profiles for regular classroom teachers.
5. Findings will be disseminated through publication and presentations to provide training practitioners and practicing professionals access to previously unavailable data about special education.
6. Ultimately, special education students will profit from the work in that the results will form the basis for improvements in the practice of special education at the classroom level.

BEST COPY AVAILABLE

The following questions were addressed in the research; answers to each are provided as a basis for understanding what is going on in self-contained special education classrooms:

1. What questioning style characterizes teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?

No differences were indicated in the questioning style of teachers in self-contained special classes. The use of convergent/divergent inquiry strategies, of strategies that motivate students to ask questions, and of questions that lead students to initially analyze instructional content were similar across special classes containing students classified as educable mentally retarded, emotionally disturbed, or learning disabled. (Tables 2-5)

2. What classroom climate is provided by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?

Few differences were evident in the classroom climate observed in self-contained special classes. While less use of varied resources was observed in classrooms containing students classified as educable mentally retarded or learning disabled than in classes of their emotionally disturbed peers, no differences were indicated in the extent their teachers worked with varied groups, provided group communication, or used verbal or nonverbal communication. (Tables 6-10)

3. What academic learning style characterizes special classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

No differences were indicated in academic learning style created by teachers in self-contained special classes. The ways teachers structured student time, demonstrated proper

listening skills, provided feedback to learners, and maintained environments in which students were actively involved were similar across special classes containing students classified as educable mentally retarded, learning disabled, or emotionally disturbed. (Tables 11-15)

4. What degree of individualization is evident in classrooms directed by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?

Teachers of students classified as emotionally handicapped were observed to provide different degrees of individualization than their colleagues teaching students classified as educable mentally retarded or learning disabled students. Although no differences were indicated in the extent teachers in self-contained classrooms accepted varied viewpoints of students, teachers of emotionally handicapped students modified their instruction and used feedback differently than their colleagues teaching students classified as learning disabled or educable mentally retarded. (Tables 16-19)

5. What teaching style is evident in self-contained classrooms for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Teaching style observed in self-contained special education classes was generally similar for teachers of students classified as learning disabled, emotionally disturbed, or educable mentally retarded, no differences were indicated in these teachers used variety in selecting instructional strategies, developed problem solving skills, provided learning experiences to enable students to transfer learning or gave clear directions. Teachers of students classified as emotionally handicapped established transitions and sequences in their instruction less than their colleagues

who were teaching in self-contained classrooms for students classified as learning disabled or educable mentally retarded. (Tables 20-25)

6. What type of classroom management characterizes teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded?

Use of effective management and use of positive reinforcement were not differentially observed in self-contained classrooms contained students classified as learning disabled, emotionally handicapped, or educable mentally retarded. However, the extent teachers in these classrooms were assisting students with error correction was different. Teachers of students classified as learning disabled or educable mentally retarded corrected students' errors more than their colleagues teaching students classified as emotionally handicapped. (Tables 26-29)

7. To what extent is questioning style of teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded and teachers of regular education students similar?

Regular class teachers used more convergent and divergent inquiry strategies than special class teachers. They also motivated students to ask questions and used questions effectively more than teachers of students classified as educable mentally retarded or learning disabled, but not more than teachers of students classified as emotionally handicapped. (Tables 2-5)

8. To what extent is classroom climate provided by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded and teachers of regular education students similar?

No differences were indicated in special and regular teachers ability to work with varied groups of students.

BEST COPY AVAILABLE

Regular teachers were observed to use more verbal and nonverbal communication and to provide more opportunities for group communication than special class teachers. Regular class teachers and teachers of students classified as emotionally handicapped used varied resources more than teachers of students classified as learning disabled or educable mentally retarded. (Tables 6-10)

9. To what extent is the academic learning style evident in special classrooms similar to that in regular classrooms?

Teachers structure student time, provide student feedback, and maintain active student involvement more in regular than special classes. Regular teachers and teachers of students classified as learning disabled demonstrated listening skills more than teachers of students classified as emotionally handicapped or educable mentally retarded. (Tables 11-15)

10. To what extent is individualization provided by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded and teachers of regular education students similar?

Teachers of students classified as emotionally disturbed were observed to modify instruction more and use more student self-feedback than any other teachers. Teachers of students classified as educable mentally retarded were observed to modify instruction less than regular teachers but similar to teachers of students classified as learning disabled. Regular teachers used student self-feedback less than teachers of learning disabled students but the same as teachers of educable mentally retarded students. Regular teachers were observed to accept varied viewpoints more than special teachers. (Tables 16-19)

11. To what extent is the teaching style evident in special classrooms similar to that in regular classrooms?

No differences were indicated in the extent teachers give clear directions in regular or special classes. Regular teachers used a variety of instructional strategies and developed problem-solving skills more than teachers of self-contained special classes. Transition and sequencing were observed to vary less in classes containing students classified as emotionally handicapped. Regular teachers and teachers of students classified as emotionally handicapped provided more transfer experiences than teachers of students classified as educable mentally retarded or learning disabled. (Tables 20-25)

12. To what extent is type of classroom management used by teachers of students classified as learning disabled, emotionally handicapped, or mentally retarded similar to that used by teachers of regular education students?

No differences were indicated in the use of positive reinforcement in regular or special classes. Regular teachers were observed to use effective management more than special class teachers and teachers of students classified as learning disabled and educable mentally retarded assisted students in error correction more than regular teachers and teachers of students classified as emotionally handicapped. (Tables 26-29)

13. To what extent is the questioning style of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Effective teachers use convergent and divergent inquiry strategies, motivate students to ask questions and use questions to generate interest and provide feedback. While regular classroom teachers use questions more effectively than teachers of students classified as educable mentally

retarded or learning disabled, those observed did not use questions more effectively than teachers of students classified as emotionally handicapped.

14. To what extent is the classroom climate provided by effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

No differences were indicated in special and regular teachers ability to work with varied groups of students. Regular teachers were observed to use more verbal and nonverbal communication and to provide more opportunities for group communication than special class teachers. Regular class teachers and teachers of students classified as emotionally handicapped used varied resources more than teachers of students classified as learning disabled or educable mentally retarded.

15. To what extent is the academic learning style evident in classrooms of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Effective teachers structure student time, provide student feedback, and maintain active student involvement. While these characteristics were more evident in regular classrooms, teachers of self-contained classrooms also demonstrated them and teachers of students classified as learning disabled demonstrated listening skills more than teachers of students classified as emotionally handicapped or educable mentally retarded.

16. To what extent is the degree of individualization evident in classrooms of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Effective teachers modify instruction to meet individual

BEST COPY AVAILABLE

learner needs. Teachers of students classified as emotionally disturbed were observed to modify instruction more and use more student self-feedback than any other teachers. Teachers of students classified as educable mentally retarded were observed to modify instruction less than regular teachers but similar to teachers of students classified as learning disabled. Regular teachers used student self-feedback less than teachers of learning disabled students but the same as teachers of educable mentally retarded students. Regular teachers accepted varied viewpoints more than special teachers.

17. To what extent is the teaching style of effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Effective teachers give clear directions, use varied instructional approaches, and develop problem-solving skills in their classrooms. No differences were indicated in the extent teachers give clear directions in regular or special classes. Regular teachers used a variety of instructional strategies and developed problem-solving skills more than teachers of self-contained special classes. Transition and sequencing were observed to vary less in classes containing students classified as emotionally handicapped. Regular teachers and teachers of students classified as emotionally handicapped provided more transfer experiences than teachers of students classified as educable mentally retarded or learning disabled.

18. To what extent is the type of classroom management used by effective teachers evident in self-contained classes for students classified as learning disabled, emotionally handicapped, or mentally retarded?

Effective teachers manage their classrooms to minimize

BEST COPY AVAILABLE

disruptions to the instructional process; they use a variety of techniques to control behavior. No differences were indicated in the use of positive reinforcement in regular or special classes. Regular teachers were observed to use effective management more than special class teachers and teachers of students classified as learning disabled and educable mentally retarded assisted students in error correction more than regular teachers and teachers of students classified as emotionally handicapped.

References

Bemis, K., & Luft, M. (1970). Relationships between teacher behavior, pupil behavior, and pupil achievement. In A. Simon & E. G. Boyer (Eds.), Mirrors for behavior: An anthology of observation instruments continued. Philadelphia: Research for Better Schools.

Blatt, B. (1958). The physical, personality, and academic status of children who are mentally retarded attending special classes as compared with children who are mentally retarded attending regular classes. American Journal of Mental Deficiency, 62, 810-818.

Brophy, J. (1979). Teacher behavior and its effects. Journal of Educational Psychology, 71, 733-750.

Brophy, J., & Evertson, C. (1974). Process-product correlations in the Texas Teacher Effectiveness Study: Final Report (Research Report No. 74-4). Austin: University of Texas, Research and Development Center for Teacher Education. (ERIC ED 091 094).

Bruininks, R., & Rynders, J. (1971). Alternatives to special class placement for educable mentally retarded children. Focus on Exceptional Children, 3, 1-12.

Budoff, M., & Gottlieb, J. (1976). Special-class EMR children mainstreamed: A study of an aptitude (learning potential) X treatment interaction. American Journal of Mental Deficiency, 81, 1-11.

Carlberg, C., & Kavale, K. (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. The Journal of Special Education, 14, 295-309.

BEST COPY AVAILABLE

Cegelka, W., & Tyler, J. (1970). The efficacy of special class placement for the mentally retarded in proper perspective. Training School Bulletin, 65, 33-65.

Coker, H., Lorentz, J. L., & Coker, J. (1976). Interim report on Carroll County CTBC Project, Fall 1976. Atlanta: Georgia State Department of Education.

Coker, J. G., & Coker, H. (1982a). Classroom Observations Keyed for Effectiveness Research: Observer Training Manual. Carrollton, GA: Author.

Coker, J. G., & Coker, H. (1982b). Classroom Observations Keyed for Effectiveness Research: User's Manual. Carrollton, GA: Author.

Dickson, G. E., & Wiersma, W. (1984). Empirical measurement of teacher performance. Toledo, OH: The Center for Educational Research and Services.

Florida Diagnostic and Learning Resources System/Action Center. (1985). Demonstration Sites: 1984-1985. Orlando, FL: Author.

Gage, N. (1978). The scientific basis of the art of teaching. New York: Teachers College Press, Columbia University.

Glass, G. V. (1993). Effectiveness of special education. Policy Studies Review, 2, 65-78.

Goldstein, H. (1964). Mentally retarded children in special programs. Journal of Education, 147, 95-100.

Goldstein, H., Moss, J., & Jordan, J. (1965). The efficacy of special class training on the development of mentally retarded children (Cooperative Research Project No. 619). Washington, DC: U. S. Office of Education.

Good, T., & Grouws, D. (1977). Teaching effects: A process-product study in fourth grade mathematics classrooms. Journal of Teacher Education, 28, 49-54.

Guskin, S., & Spicker, H. (1968). Educational research in mental retardation. In N. Ellis (Ed.), International review of research in mental retardation (Vol. 3). New York: Academic Press.

Harris, A. J., Morrison, C., Serwer, B., & Gold, L. (1968). A continuation of the CRAFT project: Concerning reading approaches with disadvantaged urban Negro children in primary grades. New York: City University of New York, Division of Teacher Education.

Harris, A., & Serwer, B. (1966). Comparison of reading approaches in first grade teaching with disadvantaged children (The CRAFT Project). New York: City University of New York, Division of Teacher Education.

Kavale, K. A., & Glass, G. V. (1982). The efficacy of special education interventions and practices: A compendium of meta-analysis findings. Focus on Exceptional Children, 15, 1-16.

Kirk, S. (1964). Research in education. In H. Stevens & R. Heber (Eds.), Mental retardation: A review of research. Chicago: University of Chicago Press.

Larrivee, B. (1985). Effective teaching for successful mainstreaming. New York: Longman.

MacMillan, D. (1971). Special educaion for the mildly retarded: Servant or savant? Focus on Exceptional Children, 2, 1-11.

BEST COPY AVAILABLE

McDonald, F., & Elias, P. (1976). The effects of teaching performance on pupil learning. (Final Report 5 Vol. 5), Beginning Teacher Evaluation Study, Phase II, 1974-1976. Princeton, NJ: Educational Testing Service.

Medley, D. (1977). Teacher competency and teacher effectiveness: A review of process-product research. Washington, DC: American Association of Colleges for Teacher Education.

Myers, J. K. (1976). The efficacy of the special day school for EMR pupils. Mental Retardation, 14, 3-11.

Perham, B. (1973). A study of multiple relationships among teacher characteristics, teaching behaviors, and criterion-referenced student performance in mathematics. Northwestern University, Unpublished Doctoral Dissertation.

Rosenshine, B. (1979). Content, time, and direct instruction. In P. Peterson & H. Walberg (Eds.), Research on teaching: Concepts, findings, and implications. Berkeley, CA: McCutchan.

Sabatino, D. A. (1971). An evaluation of resource rooms for children with learning disabilities. Journal of Learning Disabilities, 4, 27-35.

Semmel, M., Gottlieb, J., & Robinson, N. (1979). Mainstreaming: Perspectives on educating handicapped children in the public schools. In D. Berliner (Ed.), Review of research in education. Washington, DC: American Educational Research Association.

Soar, R. S. (1966). An integrative approach to classroom learning (Report for NIMH Projects No. 5-R11 MH 01096 and 7-R11 MH 02045). Philadelphia: Temple University. (ERIC ED 033 749).

BEST COPY AVAILABLE

Soar, R. S. (1973). Follow through classroom process measurement and pupil growth (1970-1971 Final Report). Gainesville, FL: University of Florida, Institute for Development of Human Resources. (ERIC ED 106 297).

Soar, R. S., & Soar, R. M. (1972). An empirical analysis of selected Follow Through programs: An example of a process approach to evaluation. In I. Gordon (Ed.), Early childhood education. Chicago: National Society for the Study of Education.

Solomon, D., & Kendall, A. (1976). Final Report. Individual characteristics and children's performance in varied educational settings. Rockville, MD: Montgomery County Public Schools, Psychological Services Section.

Spaulding, R. L. (1965). Achievement, creativity, and self-concept correlates of teacher-pupil transactions in elementary school classrooms. Hempstead, NY: Hofstra University.

Stallings, J., & Kaskowitz, D. (1974). Follow Through classroom observation evaluation 1972-1973 (SRI Project No. URU-7370). Stanford, CA: Stanford Research Institute.

Tindal, G. (1985). Investigating the effectiveness of special education: An analysis of methodology. Journal of Learning Disabilities, 18, 101-112.

Trimble, A. C. (1970). Can remedial reading be eliminated? Academic Therapy, 5, 207-213.

Vacc, N. A. (1972). Long term effects of special class intervention for emotionally disturbed children. Exceptional Children, 39, 15-22.

Table 1
Reliabilities and Number of Behaviors Coded in Scoring Keys

1. **Questioning style**	
a. Uses convergent and divergent inquiry strategies. (34)	.63
b. Motivates students to ask questions. (10)	.26
c. Uses questions that lead students to analyze, synthesize and think critically. (8)	.00
2. **Classroom climate**	
a. Demonstrates ability to work with individuals, small groups, and large groups. (9)	.30
b. Uses a variety of resources and materials. (1)	.00
c. Provides group communication experiences. (5)	.61
d. Uses a variety of functional verbal and non-verbal communication skills with students. (15)	.78
3. **Academic learning style**	
a. Structures the use of time to facilitate student learning. (12)	.41
b. Demonstrates proper listening skills. (9)	.44
c. Provides feedback to learners on their cognitive performance. (16)	.37
d. Maintains environment in which students are actively involved. (64)	.81
4. **Individualization**	
a. Modifies instructional activities to accommodate identified needs. (5)	.42
b. Accepts varied student viewpoints and/or asks students to extend or elaborate answers or ideas. (27)	.61
c. Develops student feedback/evaluation skills and self-evaluation. (2)	.18
5. **Teaching style**	
a. Uses a variety of instructional strategies. (8)	.34
b. Develops and demonstrates problem-solving skills. (10)	.58
c. Establishes transitions and sequences in instruction which are varied, logical and appropriate. (10)	.07
d. Provides learning experiences which enable students to transfer principles and generalizations to situations outside school. (13)	.47
e. Gives clear directions and explanations. (16)	.31
6. **Classroom management**	
a. Implements an effective classroom management system for positive student behavior (discipline). (55)	.63
b. Uses positive reinforcement patterns with students. (19)	.61
c. Assists students in discovering and correcting errors and inaccuracies. (7)	.54

BEST COPY AVAILABLE

Table 2

Means and Standard Deviations For Questioning Style Observed In Regular and Self-Contained Special Classes

Classroom	Teaching Domain IS	AQ	UQ
LD	44.94	45.40	41.59
	8.90	7.57	8.62
EMR	44.36	44.84	41.65
	10.93	6.82	10.00
EH	44.00	49.93	48.78
	7.99	7.44	5.56
REG	54.49	53.11	55.56
	8.54	11.06	7.29

Note. IS=Uses convergent and divergent inquiry strategies, AQ=Motivates students to ask questions, UQ=Uses questions that lead students to analyze, synthesize, and think critically.

BEST COPY AVAILABLE

Table 3

Analysis of Variance Summary and Followup Statistics
Extent Teachers Use Convergent and Divergent Inquiry In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	493.69	3	6.12*
Within Classes	80.69	56	

*p < 0.05

Followup Statistics

EH	EMR	LD	REG
44.00	44.36	44.94	54.49

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special.

Table 4

Analysis of Variance Summary and Followup Statistics
Extent Teachers Motivate Students To Ask Questions In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	272.78	3	2.95*
Within Classes	92.53	56	

*$p < 0.05$

Followup Statistics

EMR	LD	EH	REG
44.84	45.40	49.93	53.11

Note. Means joined by common underline are not statistically different.

EMR & LD different than Regular.
EH & Regular similar.
No differences in special classes.

Table 5

Analysis of Variance Summary and Followup Statistics For Extent Teachers Use Questions Effectively In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	834.35	3	13.36*
Within Classes	62.47	56	

*p < 0.05

Followup Statistics

LD	EMR	EH	REG
41.59	41.65	48.78	55.56

Note. Means joined by common underline are not statistically different.

LD & EMR different than Regular.
No differences in special classes.
EH and Regular similar.

Table 6

Means and Standard Deviations For Classroom Climate Observed In Regular and Self-Contained Special Classes

Classroom	Teaching Domain			
	AW	VR	GC	VC
LD	52.47	41.51	39.84	40.03
	8.63	8.18	12.09	5.94
EMR	53.82	39.97	46.91	41.06
	8.44	6.07	10.47	2.82
EH	53.42	49.86	46.67	39.10
	8.34	5.98	7.80	5.14
REG	47.39	55.89	54.93	58.02
	10.84	7.66	6.99	4.73

Note. AW=Demonstrates ability tc work with individuals, small groups, and large groups, VR=Uses a variety of resources and materials, GC=Provides group communication experiences, VC=Uses a variety of verbal and nonverbal communication skills with students.

Table 7

Analysis of Variance Summary and Followup Statistics For Teachers' Ability To Work With Varied Groups In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	169.10	3	1.72
Within Classes	98.10	56	

Followup Statistics

LD	EH	EMR	REG
52.47	53.42	53.82	47.39

Note. Means joined by common underline are not statistically different.

No differences among special.
No differences between special & regular classes.

BEST COPY AVAILABLE

Table 8

Analysis of Variance Summary and Followup Statistics
For Use of Varied Resources In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	981.27	3	17.99*
Within Classes	54.55	56	

*$p < 0.05$

Followup Statistics

EMR	LD	EH	REG
39.97	41.51	49.86	55.89

Note. Means joined by common underline are not statistically different.

LD & EMR less than EH & Regular.
EH more than other special but same as Regular.

Table 9

Analysis of Variance Summary and Followup Statistics For Extent Teachers Provide Group Communication In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	699.64	3	10.04*
Within Classes	69.67	56	

*p < 0.05

Followup Statistics

LD	EH	EMR	REG
39.84	46.67	46.91	54.93

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 10

Analysis of Variance Summary and Followup Statistics For Use of Verbal and Nonverbal Communication In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	1576.49	3	69.48*
Within Classes	22.69	56	

*p < 0.05

Followup Statistics

EH	LD	EMR	REG
39.10	40.03	41.06	58.02

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 11

Means and Standard Deviations For Academic Learning Style Observed In Regular and Self-Contained Special Classes

Classroom	Teaching Domain ST	LS	PF	AI
LD	42.14	49.18	46.39	42.99
	15.91	6.90	7.90	11.12
EMR	45.31	41.82	43.08	43.06
	12.19	12.64	11.73	11.12
EH	46.65	41.04	43.99	40.86
	5.12	13.82	7.70	11.87
REG	54.65	54.38	54.39	56.10
	3.16	6.94	8.60	10.34

Note. ST=Structures student time, LS=Demonstrates proper listening skills, PF=Provides feedback to learners, AI=Maintains environment in which students are actively involved.

Table 12

Analysis of Variance Summary and Followup Statistics For Extent Teachers Structure Student Time In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	560.46	3	7.27*
Within Classes	77.13	56	

*p < 0.05

Followup Statistics

LD	EMR	EH	REG
42.14	45.31	46.65	54.65

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 13

Analysis of Variance Summary and Followup Statistics For Extent Teachers Demonstrated Listening Skills In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	597.08	3	7.95*
Within Classes	75.15	56	

*$p < 0.05$

Followup Statistics

EH	EMR	LD	REG
41.04	41.82	49.18	54.38

Note. Means joined by common underline are not statistically different.

EH & EMR less than Regular.
Special class similar.
LD & Regular similar.

Table 14

Analysis of Variance Summary and Followup Statistics For Extent Feedback Was Provided To Learners In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	491.59	3	6.08*
Within Classes	80.80	56	

*$p < 0.05$

Followup Statistics

EMR	EH	LD	REG
43.08	43.99	46.39	54.39

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special.

Table 15

Analysis of Variance Summary and Followup Statistics For Extent Teachers Maintain Active Involvement In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	917.43	3	15.82*
Within Classes	57.99	56	

*p < 0.05

Followup Statistics

EH	EMR	LD	REG
40.86	42.99	43.06	56.10

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special.

BEST COPY AVAILABLE

Table 16

Means and Standard Deviations For Individualization Observed In Regular and Self-Contained Special Classes

Classroom	Teaching Domain MI	VV	SF
LD	47.88	44.02	55.09
	9.39	5.12	7.60
EMR	42.63	42.64	50.91
	7.93	7.87	7.79
EH	63.15	43.83	63.50
	17.70	8.21	18.50
REG	50.54	55.35	45.40
	6.49	9.24	3.86

Note. MI=Modifies instruction by learner needs, VV=Accepts varied viewpoints and/or asks students to extend or elaborate answers, SF= Develop student feedback/evaluation skills and self-evaluation.

Table 17

Analysis of Variance Summary and Followup Statistics
For Extent Teachers Modify Instruction In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	545.95	3	7.01*
Within Classes	77.89	56	

*p < 0.05

Followup Statistics

EMR	LD	REG	EH
42.65	47.88	50.54	63.15

Note. Means joined by common underline are not statistically different.

EH more than any; EMR & LD similar; LD similar to Regular.

.....

EMR different than EH & REG.

EH more than all.

Table 18

Analysis of Variance Summary and Followup Statistics
For Extent Teachers Accept Varied Viewpoints In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	702.41	3	10.11*
Within Classes	69.51	56	

*p < 0.05

Followup Statistics

EMR	EH	LD	REG
42.64	43.83	44.02	55.35

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 19

Analysis of Variance Summary and Followup Statistics
For Teachers Use of Student Self-Feedback In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	695.08	3	11.75*
Within Classes	59.15	56	

*p < 0.05

Followup Statistics

REG	EMR	LD	EH
45.40	50.91	55.09	63.50

Note. Means joined by common underline are not statistically different.

EH more than any; EMR & LD similar; EMR similar to Regular.

Regular different than LD & EH; EH more than All.

Table 20

Means and Standard Deviations For Teaching Style Observed In Regular and Self-Contained Special Classes

	Teaching Domain				
Classroom	VI	PS	TS	TP	CD
LD	46.37	44.07	48.00	43.93	48.80
	6.74	7.35	9.80	5.28	16.07
EMR	46.52	39.83	47.66	40.88	50.09
	8.15	8.55	10.91	4.84	12.50
EH	41.74	44.94	36.86	48.58	54.31
	7.64	6.70	8.02	6.06	13.33
REG	53.77	55.98	53.77	55.05	49.59
	10.48	7.55	7.99	10.06	5.57

Note. VI=Use a variety of instructional strategies, PS=Develop problem solving skills, TS=Establishes transitions & sequences in instruction, TP=Provides learning experiences to enable students to transfer learning, CD=Gives clear directions.

Table 21

Analysis of Variance Summary and Followup Statistics For Use of Variety of Instructional Strategies In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	381.34	3	4.40*
Within Classes	86.71	56	

*p < 0.05

Followup Statistics

EH	LD	EMR	REG
41.74	46.37	46.52	53.77

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 22

Analysis of Variance Summary and Followup Statistics For Teachers' Development of Problem-Solving Skills In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	917.83	3	15.83*
Within Classes	57.97	56	

*$p < 0.05$

Followup Statistics

EMR	LD	EH	REG
39.83	44.07	44.94	55.98

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 23

Analysis of Variance Summary and Followup Statistics
For Extent Transition and Sequencing Vary In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	534.45	3	6.81*
Within Classes	78.50	56	

*$p < 0.05$

Followup Statistics

EH	EMR	LD	REG
36.86	47.66	48.00	53.77

Note. Means joined by common underline are not statistically different.

EH less than all others.
EMR, LD, & Regular similar.

Table 24

Analysis of Variance Summary and Followup Statistics
For Extent Teachers Provide Transfer Experiences In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	696.89	3	9.98*
Within Classes	69.82	56	

*p < 0.05

Followup Statistics

EMR	LD	EH	REG
40.88	43.93	48.58	55.05

Note. Means joined by common underline are not statistically different.

Special classes similar.
EH & Regular similar.
Regular more than EMR & LD.

Table 25

Analysis of Variance Summary and Followup Statistics
For Extent Teachers Give Clear Directions In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	44.29	3	0.42
Within Classes	104.78	56	

Followup Statistics

LD	REG	EMR	EH
48.80	49.59	50.09	54.31

Note. Means joined by common underline are not statistically different.

No differences between special & Regular classes.

Table 26

Means and Standard Deviations For Classroom Management Observed In Regular and Self-Contained Special Classes

	Teaching Domain		
Classroom	EM	PR	CE
LD	44.28	50.63	59.74
	8.91	11.40	9.01
EMR	46.74	46.92	59.59
	9.19	10.72	6.53
EH	38.28	48.97	50.50
	16.22	11.47	14.40
REG	55.03	50.91	43.76
	5.60	9.48	4.01

Note. EM=Use of effective management, PR=Use positive reinforcement patterns, CE=Assists students in discovery & correcting errors.

Table 27

Analysis of Variance Summary and Followup Statistics
For Use of Effective Management In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	708.58	3	10.24*
Within Classes	69.19	56	

*$p < 0.05$

Followup Statistics

EH	LD	EMR	REG
38.28	44.28	46.74	55.03

Note. Means joined by common underline are not statistically different.

Regular more than special.
No differences in special classes.

Table 28

Analysis of Variance Summary and Followup Statistics
For Use of Positive Reinforcement In
Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	44.48	3	0.42*
Within Classes	104.78	56	

*$p < 0.05$

Followup Statistics

EMR	EH	LD	REG
46.92	48.97	50.63	50.91

Note. Means joined by common underline are not statistically different.

No differences between special & regular.

Table 29

Analysis of Variance Summary and Followup Statistics For Extent Teachers Assist In Error Correction In Regular and Self-Contained Special Classes

Analysis of Variance Summary

Source	MS	df	F
Between Classes	1083.95	3	22.09*
Within Classes	49.06	56	

*p < 0.05

Followup Statistics

REG	EH	EMR	LD
43.76	50.50	59.59	59.74

Note. Means joined by common underline are not statistically different.

Regular class teachers less than EMR and LD.
EH same as Regular and less than other special class teachers.
EMR and LD were similar but different than EH and Regular.